



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/367,580	08/17/1999	KLAUS GRADISCHNIG	P991527	4526
29177	7590	10/04/2004	EXAMINER	
BELL, BOYD & LLOYD, LLC			PHAN, MAN U	
P. O. BOX 1135			ART UNIT	PAPER NUMBER
CHICAGO, IL 60690-1135			2665	

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/367,580	GRADISCHNIG, KLAUS	
	<b>Examiner</b>	<b>Art Unit</b>	
	Man Phan	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 28 June 2004.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 7-12 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 7,8,10 and 11 is/are rejected.

7) Claim(s) 9 and 12 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

***Response to Amendment and Argument***

1. This communication is in response to applicant's 06/28/2004 Amendment in the application of Gradišnig for "A node which supports enhanced links for transferring longer messages than according to current MTP level 2" filed 08/17/1999. This application is a 371 of PCT/EP98/00877 filed 02/16/1998, and claims for foreign priority based on an application filed in FED REP GERMANY - 97102527.5 on 02/17/1997. The amendment and argument has been entered and made of record. Claim 7-12 are pending in the application.
2. Applicant's amendment and argument to the rejected claims are insufficient to distinguish the claimed invention from the cited prior arts or overcome the rejection of said claims under 35 U.S.C.103 as discussed below. Applicant's argument with respect to the rejected claims have been fully considered, but they are not persuasive for at least the following reasons:
3. Applicant's argument with respect to the rejected claims 7, 10 (Page 4, fifth paragraph) that the cited references do not teach or suggest the "*first and second destination point codes*". However, Christie et al. (US#5,926,482) is applied herein merely for the teaching of the converting point codes in a signal transfer point in a telecommunications signaling system. The STP converts point codes (*first and second signaling point codes*) which designate the origination and destination signaling points for the message (OPC & DPC). The conversion is based on information defined by the messages, such as origination or destination information; creates a virtual signaling system which can be reconfigured at the STP by converting point

codes, and thus, altering the identities of the signaling points (See Fig. 6 and the abstract).

Christie discloses an enhanced signal transfer point (STP) which alters the point codes (*first and second signaling point codes*) in telecommunications signaling and supports user parts in addition to providing standard STP functionality. In addition, a broadband point code identifying functions and MTP users is designed to support a longer message length compared to current MTP level 2 (See Fig. 1 and page 2). As is known in the art, MTP Levels 1 and 2 facilitate the transfer of SS7 messages from one point to another over an individual signaling link. Level 3 facilitates the transfer of SS7 messages over the SS7 network beyond the requirements of individual link transmission. In other words, levels 1 and 2 are concerned with transport over individual links whereas level 3 is concerned with transport over the SS7 network in general. An STP accomplishes its routing task at level 3 through the use of point codes (*first and second signaling point codes*) which identify the various signaling points in the network. The STP level 3 will identify the destination point code (DPC) in an SS7 message and select the proper signaling link for routing that message (*second point code which is used to identify the particular node as one which has the ability to transfer the message*). For example, if switch A signals a switch B through an STP, the message will contain the destination point code (*second point code*) for the signaling point in switch B (and the originating point code (*first point code*) for switch A). The STP will accept this signal off of one signaling link, read the destination point code (*second point code*), and place the message on the appropriate link for switch B (See Fig. 8; Col. 1, lines 40 plus).

Applicant further asserted that the reference does not teach or suggest “*an STP having Q.703 links*”(page 4, last paragraph). However, According to the ITU-T Recommendation

Q.703 (03/93), the signaling link information/functions, together with a signaling data link as bearer, provide a signaling link for reliable transfer of signaling messages between two directly connected signaling points. Signaling messages delivered by superior hierarchical levels are transferred over the signaling link in variable length signal units. A signal unit is constituted of a variable length signaling information field which carries the information generated by a user Part and a number of fixed length fields which carry information required for message transfer control. In the case of link status signal units LSSU, the signaling information field and the service information octet is replaced by a status field which is generated by the signaling link terminal. There are three types of signal unit, i.e. the message signal units MSU, link status signal units LSSU and fill-in signal units FISU. The signaling link functions comprise signal unit delimitation, signal unit alignment, error detection, error correction, initial alignment, signaling link error monitoring and flow control. All these functions are coordinated by the link state control.

Examiner maintains that the references cited and applied in the last office actions for the rejection of the claims 7, 10 are maintained in this office action.

***Claim Rejections - 35 USC '103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior

art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7-8 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christie et al. (US#5,926,482) in view of Duree et al. (US#5,940,393).

With respect to claim 7, Christie discloses an enhanced signal transfer point (STP) applies message transfer part (MTP) functions to signaling message that contain point codes. A signaling system in accordance with the present invention comprising first and second signaling point codes, wherein the second point code is used to identify functions and MTP users (See Figs. 4-6, Col. 4, lines 8-29). Christie further teaches of the converting point codes in a signal transfer point in a telecommunications signaling system. The STP converts point codes (first and second signaling point codes) which designate the origination and destination signaling points for the message (OPC & DPC). The conversion is based on information defined by the messages, such as origination or destination information; creates a virtual signaling system which can be reconfigured at the STP by converting point codes, and thus, altering the identities of the signaling points (See Fig. 6 and the abstract). Christie discloses an enhanced signal transfer point (STP) which alters the point codes (first and second signaling point codes) in telecommunications signaling and supports user parts in addition to providing standard STP functionality. In addition, a broadband point code identifying functions and MTP users is designed to support a longer message length compared to current MTP level 2 (See Fig. 1 and page 2). As is known in the art, MTP Levels 1 and 2 facilitate the transfer of SS7 messages from

one point to another over an individual signaling link. Level 3 facilitates the transfer of SS7 messages over the SS7 network beyond the requirements of individual link transmission. In other words, levels 1 and 2 are concerned with transport over individual links whereas level 3 is concerned with transport over the SS7 network in general. An STP accomplishes its routing task at level 3 through the use of point codes (first and second signaling point codes) which identify the various signaling points in the network. The STP level 3 will identify the destination point code (DPC) in an SS7 message and select the proper signaling link for routing that message (second point code which is used to identify the particular node as one which has the ability to transfer the message) (See Fig. 8; Col. 1, lines 40 plus).

However, Christie does not expressly disclose wherein the second destination point code is used to make full use of the longer and unsegmented message length. In the same field of endeavor, Duree et al. (US#5,940,393) discloses in Fig. 9 a block diagram illustrated the connection processing systems, in which the signaling links 990 and 991 are SS7 links. Link 992 is a data link with an example being an ethernet connection transporting UDP/IP, although a bus arrangement could be used if the CCM and the mux are physically integrated. STP 960 is device that routes signaling messages. STPs are well known in the art. CCM 950 would be identified by its own signaling point code. Point codes designate various points in the network and they are used to route signaling messages to these points. STP 960 would route signaling messages with the point code of CCM 950 to CCM 950. The signaling protocol could be based on narrowband Integrated Services Digital Network (ISDN) User Part (N-ISUP) employing Message Transfer Part (MTP) levels 1 - 3. In some embodiments, the signaling uses N-ISUP messages transported over broadband connections. This would entail a protocol stack of MTP3-Signaling ATM

Adaption Layer (SAAL)-ATM. In other words, N-ISUP messages from MTP3 would be encapsulated into ATM cells for transport (Col. 12, lines 20 plus and Col. 34, lines 25 plus).

Regarding claim 10, this claim differs from the claim above in that the point codes being part of different MTP networks but not the same MTP networks. However, Christie further discloses in Fig. 2 a basic relationship of a telecommunications network including a signaling system that is linked to signaling point in other network elements. Other types of signaling points are equally applicable to the present invention. For example, the above referenced signaling processors can function as signaling points. In addition, other signaling systems, such as C7 signaling, are equally applicable to the present invention (Col. 5, lines 51-60).

Regarding claims 8 and 11, Christie discloses the MTP routing tables supporting the enhanced links, wherein the routing tables are structured such that routing between nodes with the second point code uses only the enhanced link (Fig. 5; Col. 8, lines 21-30).

One skilled in the art would have recognized the need for effectively and efficiently transferring message using the signaling point codes in the broadband telecommunications system, and would have applied Duree's novel use of the call connection manager for transferring information across links in an SS7 network into Christie's teaching of the enhanced signal transfer point which alters the point codes in telecommunications signaling. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Duree's telecommunications system with a connection processing system into Christie's telecommunications apparatus, system, and method with an enhanced signal transfer point with the motivation being to provide a node which supports enhanced links for transferring longer messages than according to current MTP level 2.

***Allowable Subject Matter***

6. Claims 9 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is an examiner's statement of reasons for the indication of allowable subject matter: The prior art of record fails to disclose or suggest wherein the primary translation is to logical destinations reachable via the enhanced links and backup translation is to logical destination reachable via links based on MTP level 2 if translation results in a physical destination located in a node supporting the enhanced links, as specifically recited in claims 9 and 12.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sipila (US# 6,163,546) discloses a method and system for data transmission.

Bjorkqvist et al. (US# 6,456,629) discloses an interworking function.

Carson et al. (US# 5,905,724) discloses a message modification apparatus for use in a telecommunication signaling network.

Mintz et al. (US# 5,915,013) discloses a method and system for achieving routing of signaling information.

Hiller et al. (US# 5,365,524) discloses a establishing telecommunications call paths between clustered switching entities

9. **THIS ACTION THIS ACTION IS MADE FINAL.** See MPEP ' 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached on Mon - Fri from 6:00 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 2665

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

**11. Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:** (703) 305-9051, (for formal communications intended for entry)

**Or:** (703) 305-3988 (for informal or draft communications, please label "PROPOSED"  
or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive,  
Arlington, VA., Sixth Floor (Receptionist).

Mphan

09/29/2004.

Man U. Phan

MAN U. PHAN  
PRIMARY EXAMINER